REMARKS

The Office Action dated March 8, 2006, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-69 are currently pending in the application, of which claims 1, 13, 22, 34, 46, and 58 are independent claims. Claims 1-69 are respectfully submitted for consideration.

Allowed and Allowable Claims

Claims 13-21 were allowed, and claims 4, 7, 11-12, 24-25, 28, 32-33, 36-37, 48-49, 60-61, 64, and 68-69 were indicated as containing allowable subject matter, but were objected to because of their dependence on rejected base claims. Applicant thanks the Examiner for this indication of allowability. Applicant respectfully submits that the base claims upon which claims 4, 7, 11-12, 24-25, 28, 32-33, 36-37, 48-49, 60-61, 64, and 68-69 depend should be allowed for the reasons explained below. It is therefore respectfully requested that this objection be withdrawn.

Rejections under 35 U.S.C. 102(e)

Claims 1-2, 6, 8-10, 58-59, 63, and 65-67 rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,665,278 of Grayson ("Grayson"). Applicant respectfully traverses this rejection.

Claim 1, upon which claims 2-12 depend, is directed to a method for providing resource discovery. The method includes sending a first request message having a first selected scope. The method also includes analyzing whether a confirm message is received from a discovered resource within the first selected scope in response to the first request message. The method further includes sending a second request message having a second selected scope when a confirm message is not received from a discovered resource in response to the first request message, the second selected scope being greater than the first selected scope.

Claim 58, upon which claims 59-69 depend, is directed to a computer program product encoding a computer program of instructions for causing a processor to locate a resource for establishing a connection thereto according to a method. The method includes sending a first request message having a first selected scope. The method also includes analyzing whether a confirm message is received from a discovered resource within the first selected scope in response to the first request message. The method further includes sending a second request message having a second selected scope when a confirm message is not received from a discovered resource in response to the first request message, the second selected scope being greater than the first selected scope.

Applicant respectfully submits that Grayson does not disclose or suggest all of the elements of the claims.

Grayson generally relates to wireless networked message routing. As Grayson explains at column 2, lines 3-27, Grayson's wireless communication network includes a

plurality of nodes clustered for the exchange of data and control message packets. Each node has its own address. Each node also knows the address for each other node in the system. If a node is trying to reach a particular node and fails, the node routes the message by a second node. Accordingly, Grayson does not address discovering resources. Indeed, the only discovery that Grayson could be said to make is the discovery of blockages.

Present claim 1 recites "a method for providing resource discovery" that comprises "analyzing whether a confirm message is received from a discovered resource." Similarly, claim 58 recites "a computer program ... for causing a processor to locate a resource" and "analyzing whether a confirm message is received from a discovered resource." Applicant respectfully submits that Grayson does not disclose or suggest at least these features of the claims.

The Office Action asserted that these features are disclosed by Figures 10 and 13 of Grayson together with column 7, lines 8-9 and column 8, lines 39-42 thereof. Applicant respectfully disagrees. In cited sections, Grayson discusses attempting to send a message to a known node B (Figure 10) or TN (Figure 13 and column 8, lines 39-42). With regard to node B, the node is a known node with a known address. There is no "discovery" that goes on in locating node B. Accordingly, node B does not correspond to "a discovered resource" as recited in claims 1 and 58, nor does the process of routing and re-routing a message to B a "method of providing resource discovery" as recited in claim 1.

Likewise TN, as described at column 8, lines 38-38 is a "non-existent or non-functional target." Accordingly, TN does not correspond to "a discovered resource" as recited in claims 1 and 58, nor is the process of routing and re-routing a message to TN a "method of providing resource discovery" as recited in claim 1.

Accordingly, it is respectfully submitted that Grayson does not disclose or suggest all of the elements of claims 1 and 58. Claims 2, 6, 8-10, 59, 63, and 65-67 depend from and therefore include all of the limitations of claims 1 and 58 respectively, as well as reciting additional limitations. It is therefore respectfully submitted that claims 2, 6, 8-10, 59, 63, and 65-67 also recite subject matter that is neither disclosed nor suggested in Grayson. Applicant therefore respectfully requests that this rejection be withdrawn.

Rejections under 35 U.S.C. 103(a)

Claims 5, 22-23, 26-27, 29-31, 34-35, 38-47, 50-57, and 62 were rejected under 35 U.S.C. 103(a) as being obvious over Grayson in view of no other references. The Office Action asserted that although Grayson does not "explicitly teach that the originate node transmit the packet to a plurality of target nodes (a multicast group)" that this would have been obvious because Grayson teaches "that the originate node broadcasts a packet to a plurality of nodes." Applicant respectfully traverses the rejection.

Claim 5 depends from claim 1 and recites additional limitations. Claim 62 depends from claim 58 and recites additional features.

Claim 22, upon which claims 23-33 depend, is directed to an article of manufacture for providing resource discovery using multicast scope selection. The article of manufacture includes a computer readable medium having instructions for causing a processor to locate a resource for establishing a connection thereto according to a method. The method includes sending a first request message having a first selected scope. The method also includes analyzing whether a confirm message is received from a discovered resource within the first selected scope in response to the first request message. The method further includes sending a second request message having a second selected scope when a confirm message is not received from a discovered resource in response to the first request message, the second selected scope being greater than the first selected scope.

Claim 34, upon which claims 35-45 depend, is directed to a discoverer including a discovery unit and an application operatively coupled to the discovery unit. The application sends a notification to the discovery unit for locating an endpoint application. The discovery unit sends a first request message having a first selected scope to a multicast group, analyzes whether a desired confirm message is received from an endpoint application in response to the first request message, and sends a second request message having a second selected scope when a desired confirm message is not received from the endpoint application in response to the first request message, the second selected scope being greater than the first selected scope.

Claim 46, upon which claims 47-57 depend, is directed to a discoverer including a discovery means for providing resource discovery and a notification means operatively coupled to the discovery means, for sending a notification to the discovery means for locating an endpoint application. The discovery means includes means for sending a first request message having a first selected scope to a multicast group. The discovery means also includes means for analyzing whether a desired confirm message is received from an endpoint application in response to the first request message. The discovery means further includes means for sending a second request message having a second selected scope when a desired confirm message is not received from the endpoint application in response to the first request message. The second selected scope is greater than the first selected scope.

Applicant respectfully submits that Grayson does not disclose or suggest all of the elements of any of the presently pending claims.

Grayson is discussed above. The present claims recite, among other things, "a discovered resource" (claims 1, 22, and 58), "a discovery unit" (claim 34), and "a discovery means" (claim 46). As explained above, Grayson does not discover (or even try to discover) any resources. Accordingly, Grayson also does not have a "discovery unit" or "discovery means." Applicant therefore respectfully submits that Grayson does not disclose or suggest at least these features of the claims.

The Office Action suggests that it would have been obvious "to transmit a packet to a group of target nodes" "by copying the packet and transmitting the packet to each

node of the group to multicast the packet." Applicant respectfully disagrees. Grayson discusses that a broadcast address can be used to send a packet to **all** nodes. Applicant respectfully submits Grayson's disclosure of simple broadcast does render "multicast" obvious. However, regardless, whether Grayson renders the multicast feature obvious is moot, because Grayson does not disclose the resource discovery features described above.

Instead, as explained at column 5, line 64 to column 6, line 49, in Grayson a newly "inducted" device performs an enrollment routine in which the device sends a message as shown in Figure 4 of Grayson, containing enrollment and features information. This information is then locally stored by each node in a locally held node table, as shown in Figure 8 of Grayson. The node table holds the node addresses of the other nodes and feature information about features that the other nodes have that might be of interest to the node. Grayson also addresses how to prevent nodes with useful features from falling off the table because nodes with a greater number of useful features are added to the table.

Accordingly, in Grayson, the features of the nodes are known, and there is no need for a node to perform discovery as to the resources of its neighbor nodes. Therefore, it would not have been obvious to modify Grayson to include resource discovery generally, or the particular recitations identified above.

As noted above claims 5, 23, 26-27, 29-31, 35, 38-45, 47, 50-57, and 62 depend from claims 1, 22, 34, 46, and 62 respectively and recite additional limitations.

Accordingly, it is respectfully submitted that claims 5, 23, 26-27, 29-31, 35, 38-45, 47, 50-57, and 62 recite subject matter that is neither disclosed nor suggested by the cited art. Accordingly, it is respectfully requested that the rejection of claims 5, 22-23, 26-27, 29-31, 34-35, 38-47, 50-57, and 62 be withdrawn.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that each of claims 1-69 recites subject matter that is neither disclosed nor suggested in the cited art. It is therefore respectfully requested that all of claims 1-69 be allowed, and this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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